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ABSTRACT

The main purpose of this paper is to delineate methods of data collection and coding currently being used in a longitudinal observational study of toddlers in 25 black families in Oakland, California. Data collection activities, accomplished through monthly three-hour visits to each home, focused on five types of data: (1) videotaped and eyewitness observations of children's behavior and interactions in their normal home environment: (2) child-focused interviews with mothers: (3) child assessments: (4) adult-focused interviews with parents: and (5) assessments of the physical environment as well as material and cultural resources of the home. Videotaping methods are emphasized and findings to date are discussed. (Author/RH)

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# Black Beginnings: A Longitudinal, Videotaped Observational Study of the Rearing and Development of Infants in Black Families*

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Over the last year and a half we have been collecting detailed observational and interview data on how black families in Oakland, California rear their young children. The overarching purpose of the project, called the Toddler and Infant Experiences Study (TIES), is to examine the socio-emotional, intellectual, creative, language and physical development of black toddlers and the corresponding childrearing practices, attitudes, beliefs and values of working-class and middle-class black parents. These parents, because they are black, are outside the mainstream of American society. They must and do respond to the differences their being black makes to their economic, social and political lives. Black parents must and do socialize their children in ways that allow them to accommodate to their marginal and often ambiguous status. The main objective of this research, then, is to document, identify, and examine in depth the intricacies and uniqueness of black family life, child socialization, and child development. Fundamental to our thinking are the following:

1) Black families raise children to become healthy, competent, self-sufficient and productive adults;

2) Black families historically and contemporaneously have developed patterns of childrearing that are appropriate for black children in a black-white society;

3) Yet, little is known about the dynamics of parent-child interaction or of child socialization patterns in typical, representative black families. (Most research has focused only on multi-problem black families and there is virtually no research on the rearing of black infants and toddlers.)

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4) Well-functioning black families and mothers can provide specific, unique and highly appropriate models for other black families and mothers and can lead the way for other families and women who are attempting to redefine and change traditional roles and relationships.

The TIES project is one of the few broad-gauged, longitudinal investigations of the everyday experiences and development of toddlers. It is particularly significant, because it is the only such study of black children and because it incorporates a number of inventive methodological innovations. These innovations include special procedures for videotaping toddlers under naturalistic conditions in ordinary home environments, a longitudinal video data bank, a behavior scoring system designed for both eyewitness and videocoding, caregiver interviews thematically linked to the video data, video records of the physical environment, and videotaping of widely used tests for toddlers. Because the research is still underway, this report will focus primarily on methodology. Part I will describe the background, objectives, sample, and procedure while Part II will highlight the methodological innovations.

## Background And Procedure Of The Study

Antecedents and Sources: As background for this study, the existing social science literature on black families and child socialization was critically reviewed. The emphasis in the literature search was on identifying patterns in black parents' childrearing philosophies and desired or preferred behaviors for children. From the works of black historians, writers and poets, as well as from the works of social scientists (for example, Belle, Bossard, Gay, Hill, Hilliard, Lewis, McAdoo, Nobles, Newburger, Ogbu, Peters, Pierce, Stack, Staples and Young), we sought examples of behaviors, attitudes and values shared by blacks in America, whether these were derived from African heritage or our historical situation in the United States, or developed as adaptations to the immediate and pressing demands of surviving as blacks in contemporary American society. These shared values and the corresponding qualities and behaviors towards which black children may be socialized are listed in Tables 1 and 2.

In its basic design, conceptualization and naturalistic observation methodology, the child development and childrearing component of TIES builds largely on previous work by Carew (White, Carew, Watts, Barnett, Kaban, Marmor and Shapiro, 1973; Carew, Chan, and Halfar, 1976; Carew, 1980) and by others who have used the TIES scoring system or variants of it (for example, in the National Family Day Home Study, reported by Fosburg et al., 1980; and in the Child and Family Resource Program Evaluation, reported by Nauta, 1980). The adult interview component of this research draws most heavily on the work of Belle (the Families and Stress Project, 1979), Carew and Lightfoot (1979), Peters and Massey (1980), McAdoo (1979), and Pierce (1975, 1978).

Objectives: The specific objectives of TIES are:

1) To document and trace longitudinally from age one to three, the daily experiences (behaviors, interactions, activities) of black children, including both the experiences that children generate for themselves in their independent pursuits and those in which their caregivers and others in their families play some part;

2) To document and trace longitudinally the course of development of major socio-emotional, intellectual, language, creative, self-care and physical competencies among black children.

3) To examine the connections between children's daily experiences (both self-generated and environmentally-produced) and their development of the competencies referred to, using three types of assessments: one based on videotaped observations of children in the home, the second on caregiver reports, and the third on performance in a standardized test situation;

4) To document and trace longitudinally the childrearing practices and styles used by black caregivers in socializing their infant-toddlers and to identify the underlying rationales, life experiences, life conditions, and personal characteristics that influence these practices and their associated attitudes and expectations;

5) To document and describe the lives of black families, focusing both on (a) factors that commonly cause stress for black mothers and influence their ability to cope with the problems of parenthood and of living in a society in which racial and social discrimination are pervasive aspects of daily life; and (b) sources of happiness, satisfaction, self-esteem, hope, and pride for black mothers.

Sample: The sample consists of 25 black families who at the time of recruitment were rearing their infant or toddler at home. Although participants were deliberately recruited to represent a broad range of social classes, family structure and other demographic characteristics, median splits show that the sample is well-balanced on important independent variables such as the child's sex, birth order, family income and maternal education. (See Table 3.)

Methods: Data collection is accomplished through monthly three-hour visits to each home, starting ideally when the child is twelve months of age and ending when the child is thirty-six months of age. Five basic types of data are gathered: 1) videotaped and eyewitness observations of children's behavior and interactions in their normal home environment; 2) child-focused interviews with mothers; 3) child assessments; 4) adult-focused interviews with parents; and 5) assessments of the physical environment and material and cultural resources

of the home. The data gathering effort is organized in six-month cycles with appropriate modifications of procedures made for each cycle. Most of the observations and child-focused interviews occur in the first three cycles, while most of the more in-depth adult-focused interviews are concentrated in the fourth cycle. A chronological list of the procedures is given in Table 4.

1. Observations. Between three and five hours of observation data on each child are collected in the first three cycles, using both eyewitness and videotape recording procedures. The observation data are coded in terms of a basic behavior-coding system entitled TIES (developed by Carew, Rosenberger et al., 1978) and a complementary coding scheme (Social-Emotional Interaction Themes, developed by Carew, David, and Rosenberger, 1980), which traces in richer qualitative detail interactions that are of prime importance in the socialization of very young children. These interactions include control-direction; affection-attachment; the handling of distress, aggression, and attention-seeking; responsiveness to requests by the child; and the encouragement of prosocial behavior. A brief overview of codes in the TIES system is given in Table 5.

Inter-coder agreement (exact agreement on each code between coder-pairs) has been tested periodically in TIES and found to be highly satisfactory (above 85 percent). Recently the reliability of the TIES scoring system was independently estimated in an evaluation of the Child and Family Resource Program (Connell and Carew, 1980), and the error variance for each code attributable to inter-coder unreliability was found to be less than 5%.

2. Child-Focused Interviews. The first three cycles include a series of interviews with the mother focusing on various aspects of development and caregiving. Each series typically comprises: 1) an update of the child's daily routine, health and developmental status (progress in toilet training, feeding, sleeping, motor, language and social skills; changes in interest and activities); 2) an open-ended video-playback interview probing the mother's perceptions of the child's behavior, capabilities, interests and personality, and the role she and significant others play in the child's ongoing development; 3) two or more interviews focusing specifically on the mother's attitudes towards and methods of handling disobedience, aggression, crying, attention-seeking, and of demonstrating love, affection and pleasure towards the child; 4) a standardized questionnaire on the mother's perceptions of the child's level of development with respect to various intellectual, language, creative, motor and self-care skills, the child's frequency of engagement in activities likely to promote these competencies, and the degree to which the mother and other family members may stimulate development through involvement in appropriate interactions with the child.

3. Child Assessments. The Bayley Mental Development Scales are administered by a black tester to the children when they are 24 and 30 months of age. The children are tested in their own homes in the presence of their mothers. Each session is videotaped. The purpose of giving this test is to compare the children's social behavior and

intellectual peformance in the highly structured, unfamiliar test situation to corresponding data drawn from the mothers' reports of them and from direct observation of them in their normal day to day activities. Preliminary analyses of the 24-month test data already indicate gross disparities for several children between test performance and the two other types of assessments.

4. Adult-Focused Interviews. Each cycle also includes interviews with the mother (and when possible, the father) to obtain information on factors that help or hinder the black mother in coping with the problems of parenthood and of being black in American society while at the same time deriving physical and mental well-being, happiness, self-esteem, hope and pride from her daily life. The interviews combine standardized and open-ended questions designed to tap: 1) basic demographic information; 2) childhood and family history; 3) critical life events; 4) present life conditions and responsibilities; 5) social networks and support systems; 6) interpersonal relationships; 7) coping strategies; and 8) feelings of depression, anxiety, self-esteem and mastery. Many of these interviews were taken or adapted from those used in the Families and Stress Project (Belle et al., 1979).

5. Physical Environment. The physical environment and material and cultural resources of the home are measured during home visits when the child is 18 and 29 months of age. The assessment includes making a complete videotaping of the premises and immediate neighborhood; sketching a floor plan of the home; recording objective data on furnishings, equipment, lighting, media, toys, and black cultural artifacts; and rating various features of the home with respect to crowdedness, order, safety, cleanliness and comfort.

## Current Status of TIES

We are now in the midst of our third cycle of data gathering (on children age 24-30 months) and will complete the data collection effort by January, 1981, when the youngest child reaches age 3.

In accordance with our proposal plan, coding of the observation and interview information has proceeded concurrently with the data collection, but full scale quantitative analysis of the data will not begin until the final project year (September, 1980). Substantively, the final data analysis will address the following major questions:

1) What types of social and non-social behavior, activities and interactions do black infants and toddlers engage in from age 1 to 3? What part do mothers and other family members play in the children's daily experiences?

2) What is the typical course of development of various social, creative, intellectual, language, self-care, and physical competencies when children are observed in their ordinary, familiar environment going about their normal activities?

3) What are the connections between the children's daily experiences (both the ones they create for themselves in their

independent pursuits and those that others play some part in producing) and their development of the competencies just referred to?

4) What consistency is there among assessments of children's development based on their performances in standardized test situations, mothers' reports, and objective observations of their everyday behavior? Do similar patterns of relationships between experiences and development hold when these different types of assessments are considered as "outcomes"?

5) What views do black parents have of race? How are these views related to their life experiences? What aspects of black culture and attributes are emphasized and admired in the home? What aspects are derogated? How do black parents help their children recognize and handle experiences of prejudice and discrimination?

6. Are different styles of parenting discernible among black mothers, and if so, how are these related to factors such as education and income, childhood and family history, critical life events, current life conditions, child-care and household and work responsibilities, involvement in social and support networks and institutions, and interpersonal relationships with family members?

7) How do the factors just mentioned relate to the black mother's ability to cope with the everyday difficulties of living, with crises, and with the particular pervasive problem of social and racial discrimination? Which factors exacerbate her problems and undermine her physical and mental well-being and that of her family? From what sources does she draw strength, happiness, self-esteem, pride and hope?

These questions will be examined through a combination of quantitative and qualitative analytic stragegies. Considering the small and heterogeneous nature of the sample, it is clearly not feasible to test statistically the effects of independent, family characteristic variables on the dependent data. Instead, the quantitative analysis will focus on revealing the connections within and among the three sets of dependent measures (the observation, interview and assessment items). For example, the analysis of the observation data will organize the many discrete categories subsumed under separate dimensions of the TIES scoring system in terms of patterns of codes that are logically and conceptually linked across dimensions of child and caregiver behavior. Certain patterns are considered important because of previous work connecting them to the developing socio-emotional and intellectual competencies of the child (Carew, 1980). These include:

A. The child in non-interactive contexts (for example, independent play) engaging in <u>self-generated</u>, mastery-oriented "intellectually valuable" activities (such as, fine-motor/spatial mastery behavior).

B. The child in interaction with the caregiver engaging in similar self-generated activities, with the caregiver essentially as an onlooker.

C. The child in interaction with the caregiver engaging in similar activities but with the child acting essentially as the onlooker and the caregiver as the active agent, creating, structuring and sustaining the experience for the child through techniques of teaching, play and helping.

D. The child in interaction with the caregiver in contexts in which the caregiver: i) exercises control over the child's activities; ii) responds to behaviors such as displays of anger/aggression, distress, and "socially undesirable" forms of attention-seeking by the child; iii) engages in affectional interchanges with the child; and iv) responds to help- and information-seeking overtures by the child.

Finally, at a still more qualitative level, detailed written and videotape case studies, modelled after those by Carew, Chan, and Halfar (1976), and Carew and Lightfoot (1979), will be constructed on a number of children and their families. These case studies will serve to make the quantitative analysis concrete and personal, to place it within a wider historical, ecological, societal and political context, and to probe the many fundamental "why" questions that this study will doubtless raise.

Methodological Innovations: Naturalistic Video Observation

The process of videotaping "au naturel," the essence of our new methodology, was not a major part of our original plan for the study. When we embarked on this research our plan was simply to videotape a few pilot subjects in order to develop training materials for the major study, which would be based on eyewitness observation. We were warned by everyone we consulted that videotaping in a completely uncontrolled home setting could not be done, and if we were foolish enough to try, the mere presence of a camera would inevitably and fundamentally distort the behavior of participants. We knew that several other researchers had used video but that they had settled for taping behind one-way mirrors in a laboratory setting (Freedle and Lewis, 1977; Slaughter, 1979) or in a controlled situation, such as feeding (Kaye, 1977), or had confined their observations to charming but relatively inactive babies (Stern, 1977) or had worked with only a few especially cooperative parents (Bruner, 1978). We found no study in which a serious attempt had been made to videotape the roving, unpredictable, free-flowing pursuits of toddlers on their home turf. Our pilot work, however, was encouraging. We felt we had made a serendipitous breakthrough and were determined to see how far we could go with the videotape approach. We scraped our budget to the bone, bought equipment at a discount, found a former TV news producer as an assistant, and with much trepidation, penetrated the perilous frontiers of video-based research.

Effects of Videotaping on Recruitment: Would the prospect of being videotaped attract or repel potential subjects? It was certainly an asset so far as obtaining publicity. "Unique Videotape Study of Black Babies. All Black Babies are Beautiful!" said our flyer, and the media loved it. In retrospect we think that some parents were certainly enticed by the notion of seeing pretty Didi on VT, but were equally many put off? One never really knows why subjects volunteer for any study, but when the question was raised in introductory visits we were amazed at how matter-of-factly parents reacted to the idea. Brought up in a TV culture they seem to regard it as nothing out of the ordinary. Our offer of a regular $20 monthly payment was clearly a great incentive to some, but for most the opportunity to participate in research about blacks seemed pivotal. This latter point can hardly be overemphasized because we seriously doubt the study would have received the same unreserved acceptance had our staff not been entirely black.

The Art of Naturalistic Videotaping: The most important objective in making a video observation in TIES is to obtain a video record of the child's normal behavior and interactions with a familiar human and physical environment, while at the same time ensuring that the high technical standards required for coding the data are met. Having no precedents to follow, we have had to learn how to do this on our own.

1. Equipment and Movement. The equipment used by the observer is the Sony portable VTR system consisting of the AV-3400 video recorder and AVC-3450 video camera. "Beep" signals delineating the coding intervals are recorded directly onto the videotape from an audio cassette recorder linked to the camera's microphone. To give the observer ease of movement while following the child from area to area, the video-deck is carried in a backpack or slung from the shoulder and the camera is hand-held. As far as possible no accessory sound or lighting apparatus is used. Instead, if necessary, the observer makes minor modifications in the home's normal lighting and sound levels (for example, by replacing low voltage lightbulbs with ones of higher intensity, drawing or closing drapes, asking that the stereo volume be turned down). The videotaper then scans the physical environment, noting particularly the arrangement of rooms and the placement of furniture she can "blend into." During the video observation the videotaper holds the camera by hand in tripod position, kneeling, bending, sitting, slinking, sliding -- doing whatever works to keep the child on camera and to make herself inconspicuous. She maintains a distance of about ten feet from the child, avoiding eye contact or interaction and anticipating the child's movements with the intuition that comes from experience. Foreseeing the child's interactions with another person is particularly demanding since the behavior of both people must be captured on tape, and the interactor is often many yards away and several feet taller than the child. After 10 minutes of taping a rest is imperative to restore nerves and energy and to readjust equipment.

2. "Act Naturally." How does a researcher convey initially that what is wanted and valued is that participants "act naturally?" The standard instruction, "try to act normally, as if we were not there," is woefully inadequate. Rapport and trust have to be established from the

start, and the message, "Look, I'm a mother/woman/black too and we have many things in common," must be clearly communicated. One strategy we have found particularly helpful, at the end of the first few visits to the home, is to show the mother excerpts from the videotape to illustrate concretely how the child is affected by changes in the normal routine and how much the child's acting naturally depends on the mother's doing the same. With some judicious questioning by the videotaper ("Are you usually able to get the house cleaned up so early in the morning?" "Is this what you normally do when Pete dumps his o.j. on the floor?" "Do you usually sit and read with Lisa or look at the Soaps after lunch?"), a candid critique is often given by the caregiver as to what is or is not normal. Thereafter there is a noticeable shift towards more relaxed, unstaged, and uninhibited behavior. On subsequent visits mothers are reminded that our interest is in the mundane, everyday experiences that children encounter in their familiar social and physical environment and that there is no need whatsoever either to act in any special fashion or to make things more convenient for us. The latter point must be stressed because often caregivers are motivated not so much by the desire to "look good" as by the wish to help out (for example, by confining the child to a particular room, shooing siblings away, or turning off the TV).

Special strategies also have to be employed with older children because of their fascination with the video apparatus and understandable jealousy of the toddler's prima donna status. These feelings are best responded to immediately, by demonstrating how the equipment works, allowing them to handle it, and coopting them as helpers in setting up the video paraphernalia. Once the preparations for taping are finished, the videotaper announces that she is ready to work and from then on studiously avoids eye contact and interaction. The fact that she is obviously very busy handling a machine (and not "just watching and writing something") definitely helps, since what the videotaper wants to establish is a consistent, predictable routine that satisfies the older child's need for attention while spelling out her expectations as to appropriate behavior at each stage of the videotaping process. Soon, even the most rambunctious preschoolers seem to get the point. Occasionally, the opposite problem arises when, say, a grandmother or father refuses to be on camera. We respect these feelings and accommodate by not following the toddler when he or she encroaches on parts of the home that are designated beforehand as the older person's territory, but such changes in the ground rules (do not stop the camera; follow the child like a shadow) are seldom necessary and are usually gradually abandoned as people become accustomed to us and comfortable with our presence in the home.

Of course, in the final analysis, the best guarantee of normal behavior is simply repeated visits to the home, frequent restatements of the purposes of the research, and the gradual building up of a trusting, mutually respectful, friendly relationship between the researcher and the caregiver. In the context of such a relationship, nurtured by many conversations, discussions, and interviews, most parents become collaborators rather than subjects in the research enterprise. They understand the role they are called on to play -- which is simply to be themselves -- and internalize the deep purpose of the study --which is

to depict the lives of black children and families objectively and authentically. They want this story told, for they know it has not been told very well so far, and they are prepared to be the first ones to tell it.

Videotaping as a Significant Psychological Experience for Toddlers: Credit it to our naivete if you will, but it came as a surprise that being videotaped could be a most significant psychological experience for toddlers. We only dimly realized beforehand that in making longitudinal video observations we would capture on tape behavioral evidence of the growth of a complex concept for which we still have no more elegant name than "Watching and Recording Me," or for short, WARME.

Before they are 18 months of age, most of our toddlers seem unaware that they are being watched. They may show some timidity toward the videotaper as a stranger and some curiosity about the video equipment, but both soon wear off. Most children go about their affairs much as if we were not there (assuming that the mother is doing her part to ensure that the child's environment and experiences are normal). Then, between 18 and 24 months of age, many toddlers suddenly seem to become conscious that they are being watched. The WARME concept glimmers. What is that person doing with that thing? At this stage some toddlers will stand staring at the videotaper, or approach and glue their eyes to the camera lens, or wriggle in front of it so as to better see what the videotaper sees. Several mimic her behavior, slinging a bag over a shoulder like a video-deck or sticking an object into an ear like an earplug. One talented 22-month old elaborated her performance to the point of screwing up one eye, planting a tube on the other, then slowly panning the scene like a professional.

Preliminary impressions suggest that before age two most toddlers are simply trying to understand the way the video equipment works and the nature of the videotaping activity itself. For them, it is like exploring the properties and functions of a new toy, with the added attraction that a grownup is modeling its use. At this age, our subjects seem to realize that the camera is for watching things, including themselves, but they seem to have no idea that a reviewable record of their behavior is being created. This is an intriguing phenomenon because several are beginning to watch TV, some have sat in earlier on our video-playback sessions, and a few have seemed to recognize themselves on the playback tapes. Yet, so far we have only one clear case of a full-blown grasp of the WARME concept. In this case the father happens to be a video buff. He is the proud possessor of the very latest in video paraphernalia including color camera and mammoth playback screen, and his daughter is his favorite subject. Knowing this, the videotaper still could hardly contain herself when 22-month-old Michelle flashed a knowing grin at the end of the session and declared: "Okay? Now, show me on TV!"

When children are between 18 and 24 months of age, fascinating developments in their awareness of the social role of the videotaper also begin to emerge. At first there surfaces something like apprehension that mischief may be reported or reprimanded. Ready to perform a "no-no", the child checks to see if the videotaper is watching and how she will react. When it is clear that she'll do nothing, some children

do the most outrageous acts, such as tipping baby brother out of his crib, then running to tell mother he "just fell." Others remain vigilant and some may become resentful, even aggressive. We call these the "leg batterers" since they assault the videotaper where they can most easily reach her -- on the leg. We hope this stage will pass and be followed by the more positive developments in social behavior that some of our other two-year-olds are beginning to evince. These charmingly cooperative subjects seem to regard the videotaper as a somewhat inept friend in need of help. They beckon her to follow, wait for her to catch up, open doors for her politely and announce what's next on their agendas so she can be prepared. We expect that in another six months, a new phase may emerge as the two-and-a-half year olds assert their rights for privacy and discover their potential for controlling the actions of a relatively powerless grown-up. We are a long way from systematically analyzing our data on the WARME concept but feel we may be on to something, at the very least the ingredients of a refreshingly different Masters' thesis.

The Pros and Cons of Video Versus Eyewitness Observations: Despite our somewhat tongue-in-cheek remarks about the development of WARME, videotaping seems to us a far superior method of documenting behavior than procedures such as eyewitness on-the-spot coding or written or narrated descriptions. The reasons are obvious.

First, videotaping records behavior more objectively and captures much more of its complexity than other methods. Separating the collection of the raw data from its interpretation (the description or coding) into two distinct steps enables the researcher to check inter-coder agreement more rigorously than the customary method of teaming observers in the home. Using videotapes, coders can work under completely "blind" and independent conditions -- an ideal that can never be reached by the traditional method of teamed eyewitness observations since here the observers are virtually always aware that their reliability is being tested and often cannot see behavior from the same vantage point.

Second, the validity of the coding system can be also more rigorously examined with video-observations since these allow the raw data to be reviewed by as many different people and from as many different perspectives as appropriate. This permits the "fit" of the coding system to actual behavior to be scrutinized, and the relationship of coder characteristics (for example, ethnicity) to coding (behavior interpretation) to be determined.

Third, videotapes provide far more complete information about behavior than other procedures, since coders can review them numerous times and analyze different aspects of behavior each time. Eyewitness observers or narrators are severely limited in how much data they can record accurately about fast-flowing, unpredictably changing, and complex events.

Fourth, videotapes are extremely efficient materials for training coders. A systematic curriculum can be designed including instructional tapes explaining each code of the scoring system, practice tapes

of increasing levels of complexity, and criterion tapes for checking final levels of accuracy. Coders can be taught the system in groups, their progress monitored step by step, and their levels of proficiency tested before, during and after the course of data collection in the field.

Finally, videotapes are particularly valuable as a vehicle for disseminating the methods and findings of research, although so far their potential has been little exploited. It is often very difficult to describe behavior, especially the actions of very young children, with precision and sensitivity. Since videotapes present behavior as it is manifested, the risk of bias and miscommunication that verbal description entails can be greatly minimized, although the technical and artistic skills required to produce scientifically valid videotape representations of research are themselves formidable.

So much for the advantages. On the debit side one drawback is the sheer cost in equipment, material, and labor. Depending on the complexity of the coding system, the ratio of tape to coding time can be prohibitively high, although the payoff in terms of information extracted per unit of observation time is potentially much larger than from alternative procedures. A more serious charge already attended to is that videotaping distorts the behavior of participants to a significantly greater degree or in a more fundamentally serious fashion than feasible alternative procedures. There is in fact very little empirical evidence on this point. In TIES we shall make detailed comparisons between video and eyewitness methods since both are used on home observations. So far preliminary analyses of these data indicate little difference in the profiles of activities recorded, apart from curiosity concerning the video apparatus per se. The WARME phenomenon described above also occurs in eyewitness observations; both procedures reflect children's growing consciousness of having their behavior watched and recorded, an awareness that is part and parcel of developing cognitive and socio-emotional competence. Indeed, the fact that the videotaping documents this evolution is an asset rather than a shortcoming.

A third disadvantage of videotaping is that it involves considerably more work for the observer. Equipment has to be maintained in working order, hauled about, lugged up to apartments with no elevators, set up for, carried during, and put away after each observation. A 20-pound video deck strapped to one's back and a 4-pound camera held in one's hand seem to double their weight after 15 minutes. Brawn and stamina are essential. Then there is the laborious task of coding the videotapes after an observation, which with the TIES system takes an average of 3 hours per ½-hour of observation. It is much less taxing on mind and body to observe and code the data on the spot.

Video Data-Bank

If our methods are successful, one special product of this study will be a video data-bank tracing longitudinally, from age one to three, in rich, ecologically valid detail, the everyday home experiences of some 25 black children. The backgrounds of these subjects are representative of those of black families and consequently are diverse in terms of

education, income, and material resources; family structure, roles and relationships; life histories and current life conditions; and caregiver styles of interaction, child-rearing practices, attitudes and values -- in short, the many factors that mediate children's day-to-day experiences and affect their day-to-day functioning and development. Potentially these video observations can be coded from a variety of cultural, theoretical, methodological, disciplinary and applied perspectives and in more or less elaborate detail. They can be used to test the reliability, validity, and cultural appropriateness of TIES or any other coding system. They can also be used to answer many methodologically and substantively important questions about such phenomena as the stability of behavior over time and across situations; the longitudinal changes in children's behavior and the parallel, interrelated process of caregiving; and similarities and differences in the paths taken by individual children to various developmental achievements, and in the strategies used by caregivers to foster these attainments. Possible practical applications include the production of instructional video materials, either to teach students about child development and family interactions or to train caregivers in more effective methods of maximizing the development of young children. Assuming problems of confidentiality and misuse of data can be solved, such a video-bank has great potential value.

## Conclusion

The main purpose of this paper has been to delineate some new methods of data collection and coding currently being used in our longitudinal observational study of black toddlers in Oakland, California. Our emphasis has been on methodological innovations using videotaping methods, because we have found this procedure to be an amazingly valuable research tool. The longitudinal nature of the project, confidentiality agreements with participants, and the sheer volume of routine data collection procedures prevent our reporting anything more than tantalizing impressions of our substantive findings at this time. In less than one year, however, we expect to have a story about the black experience that has never before been objectively documented or publicized.

## Footnotes

1. The project is to be completed in Fall, 1981.

2. The female pronoun will be used in references to the videotaper throughout this paper, since all our videotapers are female.

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Table 1

CULTURE SPECIFIC VALUES SHARED BY AFRO-AMERICAN FAMILIES

| Area | Culture Specific Values | Reference |
|---|---|---|
| DISCIPLINE | Strict Discipline appreciated;<br>Situation-specific discipline considered appropriate | Young (1970); Peters (1969) |
| PERCEPTION OF CHILDREN | Value placed on child, essentially, for who he/she is; i.e., child of this family;<br>Encouragement of "individualistic" personality within the primary group | Bossard and Boll (1960)<br>Young (1970) |
| EXPECTATIONS RE AGE/SEX APPROPRIATE CHORES AND RESPONSIBILITIES | Reponsibility training (self-care, help with housework) required earlier.<br>Less Distinction made in assigning tasks to boys and girls. | Lewis (1976); Peters (1976) |
| FAMILY ROLES | Role flexibility within family;<br>Sharing both income-producing and household roles, child care and financial management responsibilities | Hill (1972); Willie (1976); Peters (1976) |
| EXTENDED FAMILY | Preference for black community;<br>Preference for extensive and active kin/friend support system | Nobles (1976); Stack (1974) |
| RACE/ RACISM | Awareness of dual identity; i.e. both American and Black American;<br>Awareness of the routine, pervasive nature of racism as well as of its potential for producing major, unpredictable crises disrupting the lives of the family, community or the larger society. | Pierce (1974); Knowles and Prewitt (1969) |

Table 2

## SPECIAL QUALITIES/BEHAVIORS TOWARD WHICH BLACK CHILDREN ARE SOCIALIZED

EMPHASIS ON:

1. Allowing both males and females to express emotions such as affection, anger, jealousy, hate, love, fear, happiness, unhappiness
(Nobles, 1974; Gay, 1975; Peters, 1976)

2. Importance of sharing
Importance of working on chore or task collaboratively with others
Expecting help from others
(Nobles, 1974; Gay, 1975)

3. Humanistic orientation:
solving human problems
working with/for people
preferring jobs involving people to technical jobs
placing high value on getting along with others
(Nobles, 1974; Gay, 1975; Abrahams, 1970)

4. Respect for authority figures
Importance of following orders
(Gay, 1972; Kohn, 1969; Peters, 1976)

5. High value of variety of responses, abilities, and talents:
physical/motoric/rhythmic
musical/athletic
verbal/social
(Gay, 1975; Abrahams, 1970; Gay and Abrahams, 1972; Peters, 1976)

6. High development of skills for oral transmission of information (Abrahams and Gay, 1972)

7. Receptivity to multiple environmental stimuli: dual attention ability (Gay, 1974; Pierce, 1974)

Table 3

TIES SAMPLE CHARACTERISTICS

| Family | C Sex | Birth Order | # Sibs | M Age | F Age | Marital Status | Care-giver | Income | M Ed. | F Ed. |
|---|---|---|---|---|---|---|---|---|---|---|
| #01 | M | 1 | 0 | 29 | 37 | S(NM) | M | 2 | 3 | - |
| 02 | M | 2 | 5 | 30 | 31 | M | M | 3 | 1 | 2 |
| 03 | M | 2 | 1 | 25 | 47 | S(NM) | M | 1 | 3 | - |
| 05 | F | 1 | 0 | 21 | 24 | LT(NM) | M&F | 3 | 2 | 2 |
| 06 | F | 1 | 0 | 22 | 33 | LT(NM) | M | 1 | 2 | 2 |
| 07 | M | 2 | 1 | 23 | 24 | S(D) | M | 1 | 1 | 1 |
| 08 | F | 2 | 1 | 22 | 53 | M | M&Gm | 3 | 1 | 1 |
| 09 | M | 2 | 3 | 29 | 37 | M | M | 3 | 1 | 2 |
| 10 | F | 1 | 0 | 26 | 31 | M | M | 3 | 2 | 3 |
| 11 | F | 1 | 1 | 22 | 20 | M | M | 1 | 2 | 1 |
| 12 | F | 1 | 0 | 33 | 29 | M | M | 3 | 2 | 2 |
| 13 | F | 2 | 2 | -- | -- | M | M | 3 | 2 | 1 |
| 15 | F | 1 | 1 | 27 | 33 | M | F | 3 | 1 | 1 |
| 17 | M | 1 | 1 | 26 | 26 | M | M | 2 | 2 | 2 |
| 18 | F | 1 | 1 | 32 | 31 | M | M | 4 | 2 | 3 |
| 19 | M | 1 | 0 | 21 | 35 | M | F | 1 | 2 | 2 |
| 20 | F | 1 | 0 | 29 | 29 | M | M | 3 | 2 | 2 |
| 21 | M | 2 | 2 | 27 | 41 | M | M | 2 | 2 | 3 |
| 22 | M | 2 | 1 | 28 | -- | S(NM) | M | 1 | 2 | 2 |
| 23 | F | 1 | 0 | 22 | 32 | (SNM) | M | 2 | 1 | 1 |
| 24 | M | 2 | 1 | 26 | 39 | M | M | 1 | 2 | 1 |
| 26 | F | 2 | 4 | 28 | 27 | M | M | 2 | 1 | 1 |
| 27 | F | 2 | 1 | 20 | 23 | S(NM) | M | 1 | 1 | 1 |
| 28 | F | 1 | 1 | 34 | 30 | M | M | 3 | 2 | 1 |
| 29 | M | 2 | 6 | 41 | 44 | M | M | 2 | 1 | 1 |
| 30 | M | 2 | 2 | 23 | 39 | M | M&F | 3 | 1 | 1 |

KEY

C=Child, M=Mother, F=Father, Gm=Grandmother

Birth Order

1=First born
1=Later born

Marital Status

M=Married
S(NM)=Single, never married
LT(NM)=Living together, never married
S(D)=Single, divorced

Income

1=$500/month
2=$500-$1000 mo.
3=$1000-$2000
4=$2000

Education

1=11-12 years
2=12-16 years
3=16+ years

Table 4

## TIES PROCEDURES

| Age (mos.) | Caregiver Interviews: Major Topics | Observations | | Tests |
|---|---|---|---|---|
| | Cycle 1 | Eyewitness | Video | |
| 12 | General. Screening; Medical history; Demographics; C's daily routine; Developmental progress, C's personality description. | | | |
| 13 | Video-playback (C in independent play); Affection-attachment | 30' | 30' | |
| 14 | Video-playback (M-C interaction); Control-obedience | 30' | 30' | |
| 15 | Video-playback (Sib-C interaction); Distress; Aggression | 30' | 30' | |
| 16 | Detailed demographics; C-rearing training, knowledge; C's relationships with relatives | 30' | 30' | |
| 17 | C's skills; Stimulation of skills | | 60' | |
| | Cycle II | | | |
| 18 | General (update); Physical environment | 30' | 30' | |
| 19 | Detailed demographics; C-rearing training, experience, knowledge; C's relationships with relatives | | | |
| 20 | Affection-attachment | 30' | 30' | |
| 21 | Control-obedience; Distress; Aggression | 30' | 30' | |
| 22 | Social and support networks; Sources C-rearing ideas; Division of child-care and household chores, Work history | | | |
| 23 | C's skills; Stimulation of skills | | 60 | |
| 24 | Father interview | | | Bayley MDI (videotaped) |

Table 4 (continued)

TIES PROCEDURES

| Age (mos.) | Caregiver Interviews: Major Topics | Observations | | Tests |
|---|---|---|---|---|
| | Cycle III | Eyewitness | Video | |
| 25 | General (update) | | 60' | |
| 26 | Affection-attachment | | 60' | |
| 27 | Control-obedience; Distress; Aggression | | | |
| 28 | Childhood and family history | | | |
| 29 | Physical environment (update) | | 60' | |
| 30 | C's skills; Stimulation of skills | | | Bayley MDI (videotaped) |
| | Cycle IV | | | |
| 31 | Life conditions | | | |
| 32 | Social and racial discrimination | | | |
| 33 | Coping and stress | | | |
| 34 | Father interview | | 60' | |
| 35 | Physical Environment (update) | | | |
| 36 | Sources of satisfaction, self-esteem and price; Feedback | | | |

Key

C=Child M=Mother Sib= Sibling

## Table 5: TIES Coding Form and Codes

Video_____ Live_____

Child_____ Coder_____ Date_____ Start_____ End_____

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | (C) or (CI) | | | | | (Cg) | (I) | | | | | | | | (C) | | |
| EDT | ACTIVITY | | | | MAS | LOC | WHO | | INT | SRC | F/C | | LAN | EMO | LAN | EMO | MOB |
| S | Ng | Dp | Fd | Dr | P | N | Cg | Of Om | C | C | T | E | Y | H | Y | H | F |
| R | Cn | Li | Wk | Et | Y | F | M | Yf Ym | O | CI | P | R | U | S | U | S | H |
| V | Ds | Ms | Fe | Nt | Q | A | F | Bf Bm | B | I | H | S | N | A | N | A | C |
| I | Ps | Ex | Gm | Mn | N | | Af Am | G | | | D | Z | | N | | N | |
| E | Af | Ca | Pn | Tr | | | O | P | | | C | I | | | | | |
| X | Rq | Fs | Cv | X | X | | | X | X | X | L | X | X | X | X | X | X |

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | |

NOTES

Etc. (15 lines per page, 1 line per 3" observation)

*C = Child; I = Interactor; CI = Child and Interactor; Cg = Caregiver

EDT=Edit

S=Same codes as previous unit
R=Behavior functionally related to previous behavior
V=Validity questionable
I=I's behavior unclear
E=Equipment, audio-visual problems
X=C out of range; can't code

ACTIVITY

Ng=Anger/aggression
Cn=Control
Ds=Distress/attention-seeking
Ps=Prosocial
Af=Affection
Rq=Child requests
Dp=Dramatic play
Li=Language/information
Ms=Music, singing
Ex=Experimentation
Ca=Creative/artistic
Fs=Fine motor spatial
Fd=Fine motor dexterity
Wk=Work, chores
Fe=Fine motor exploratory
Gm=Gross motor
Pn=Physical needs
CV=Conversation
Dr=Adult directives
Et=Educational media
Nt=Non-educational media
Mn=Monitoring
Tr=Transport, locomote
X=None of the above

Table 5 (cont'd)

MAS=Mastery by C

P=Yes, shows pride
Y=Yes
Q=Yes, questions
N=No

INT=Interaction Type

C=Convergent
D=Divergent
B=Borderline

Cg LOC=Caregiver Location

N=Near
F=Far
A=Absent

SRC=Source of Activity

C=Child
CI=Child and Interactor
I=Interactor

WHO (Who is the Interactor?)

Cg=Caregiver
M=Mother (if not Cg)
F=Father (if not Cg)
Af=Adult female age 12+ yrs.
Am=Adult male age 12+ yrs.
Of=Older female child 6-11
Om=Older male child 6-11
Yf=Younger female child 3-5
Ym=Younger male child 3-5
Bf=Baby/toddler, female (0-3)
Fm=Baby/toddler, male (0-3)
G=Group (2 or more persons)
P=Pet, toy
X=None of the above

F=Facilitate by I

T=Teach
P=Play/participate
H=Help
D=Direct
C=Conversation
L=Look/listen

C=Control by I

E=Explanation
R=Routine control
S=Strict control
Z=Protest
I=Ignore

LAN=Language by I

Y=Yes
U=Unintelligible/ inaudible
N=No

EMO=Emotion by I

H=Happy
S=Sad
A=Angry
N=Neutral

LAN=Language by C

Y=Yes
U=Unintelligible/ Audible
N=No

EMO=Emotion by C

H=Happy
S=Sad
A=Angry
N=Neutral

MOB=Child Mobility

F=Free
H=Held
C=Confined